

WELL SAMPLING WORK PLAN 2017 – QUARTER 1

TOWER STANDARD SERVICE 14267 STATE HIGHWAY 70 LAC DU FLAMBEAU

**BRRTS #03-64-127889
PECFA #54538-9517-67**

REI #903

INTRODUCTION

REI Engineering, Inc. (REI) has prepared a Groundwater Sampling Work Plan to complete groundwater sampling activities at the former Tower Standard Service located at 14267 State Highway 70 W, Lac du Flambeau, WI. (Figure 1).

Scope of Work

REI has received approval from the Wisconsin Department of Natural Resources (WDNR) to conduct groundwater sampling from the existing groundwater monitoring well network associated with the Tower Standard investigation (Bristol Figure 2). REI recommends that the following workscope be completed to aid in defining the vertical and lateral extent of groundwater contamination at the site. The specific work scope is as follows:

1. Mobilize to the site to conduct the sampling and collection of groundwater samples from each of the groundwater monitoring wells associated with the Tower Standard investigation.
2. No potable wells will be sampled during this proposed sampling event.
3. REI will also provide ten (10) days advance notice to the Lac du Flambeau Tribal Natural Resource Department Environmental Specialist prior to initiating any proposed site work.

4. REI proposes the use of low flow groundwater sampling methodologies. Water samples are to be collected using low-flow pumping with a peristaltic pump. Field measurements collected for temperature, conductivity, dissolved oxygen, pH, and redox potential through an in-line flow cell. Samples to be collected once field measurements have stabilized. If, prior to sampling, the well was purged dry, it is allowed to recharge prior to sampling.
5. Samples will be submitted for laboratory analysis of Petroleum Volatile Organic Compounds (PVOCs) and naphthalene.
6. All purge water and other investigative waste will be containerized in DOT certified 55-gallon drums pending final disposal at a licensed facility.
7. Upon completion of the fieldwork, REI will provide a copy of the recorded field data and groundwater analytical results to the Wisconsin Department of Natural Resources Project Manager, United States Environmental Protection Agency Corrective Action Manager and Lac du Flambeau Tribal Natural Resource Department Environmental Specialist.

Quality Assurance/Quality Control (QA/QC)

REI personnel will maintain strict adherence to established QA/QC procedures during sample collection and handling. EPA and/or WDNR standard accepted sample collection, transportation and storage protocols will be implemented prior to analysis of samples by a state certified laboratory. Sample containers will be properly preserved and stored prior to analysis. Dates of analysis, contingent upon the shelf life of the parameter of interest, will be noted. Field chain-of-custody (COC) documentation will be maintained for each sample. Internal laboratory QA/QC protocols will be adhered to in accordance with protocols outlined in EPA document SW846, Test Methods for Evaluating Solid Waste, EPA Method 8021 WDNR Petroleum Volatile Organic Compounds and naphthalene and EPA method 6010/200.7 Dissolved Lead.

Chain of Custody

Upon completion of a soil, groundwater or vapor sample, a chain of custody log will be initiated. The chain of custody record will include the following information: project name, work order number, shipped by, shipped to, sampling point, location, field ID number, date and time taken, sample type, number of containers, analysis required, sampler(s) signature(s), etc. The fewest number of people possible will handle the samples.

Decontamination

Decontamination of all field equipment will be performed to eliminate potential cross-mixing between discrete sampling points. All sampling equipment will be decontaminated by washing with an Alconox/demineralized water solution, rinsing with demineralized water. Wash water will be contained in Wisconsin Department of Transportation (WDOT) approved 55-gallon drums pending proper disposal or treatment.

CHEMICAL ANALYSIS OF GROUNDWATER

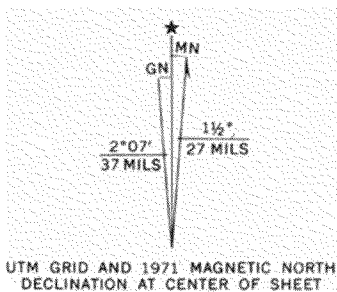
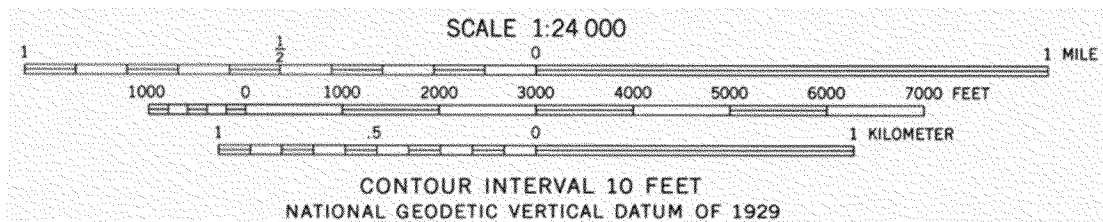
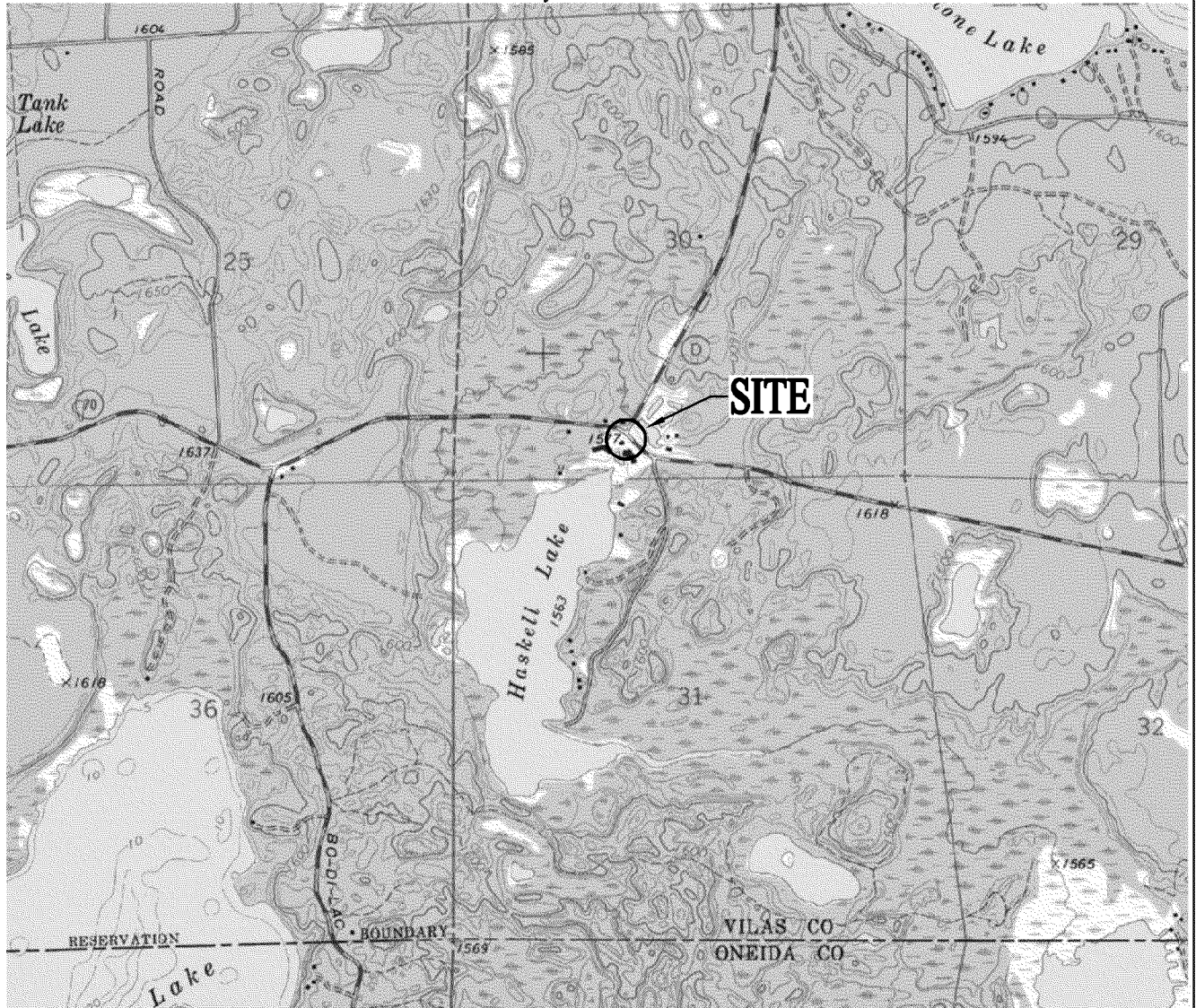
Groundwater samples collected will be submitted to a state certified laboratory for analysis of appropriate constituents. Laboratory analysis of the collected groundwater samples will be completed in accordance with EPA and/or WDNR accepted methods. The groundwater samples collected from each monitoring well will be analyzed according to one or more of the following methodologies:

| <u>EPA Method</u> | <u>Analytical Constituent</u> | <u>Method Detection Limit</u> |
|--------------------------|---|--------------------------------------|
| 8021 | Petroleum Volatile Organic | 0.322 – 1.029 mg/L |
| 6010/200.7 | Compounds and Naphthalene Dissolved Lead | 1.0 u/L |

ug/L = parts per billion (ppb)

mg/L = parts per million (ppm)

All groundwater sample data collected from field measurements and laboratory analytical sampling will be tabulated and summarized in subsequent reports. Laboratory analytical results will be compared to enforceable limits specific to each compound.

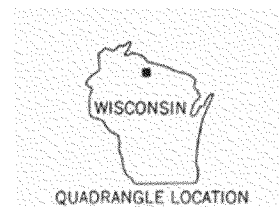


LAC DU FLAMBEAU, WIS.

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AMS 3075 IV NW—SERIES V861



REI Engineering, INC.

TOWER STANDARD
14267 HIGHWAY 70 WEST
LAC DU FLAMBEAU, WISCONSIN

FIGURE 1 : SITE VICINITY MAP

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| PROJECT NO. | 0903 | DRAWN BY: | TAW | DATE: | 5/18/2016 |
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